

Okay to enter substitute specification
filed 9-30-08,
/Hal D Wachsman/
10-23-08

SUBSTITUTE SPECIFICATION

I

A METHOD FOR LOGGING THE PERFORMANCE OF A VEHICLE SUSPENSION SYSTEM

This application claims the benefit under 35 U.S.C. § 371 to

- 5 International Application PCT/AU2004/001107, which claims the priority of
Australian Application No. 2003904423 filed August 19, 2003.

Field of the Invention.

- The present invention relates to vehicle suspension systems and in
10 particular to a method for logging the performance of a vehicle suspension system in
reaction to impulsive loads applied thereto.

Background Art.

- Methods for testing the performance of vehicle suspension systems are
15 generally known.

Automotive vehicles commonly employ a suspension system connected
between the road wheels and the body of the vehicle.

- Conventional shock absorbers typically have a limited operating life,
and therefore may need to be replaced when they no longer function properly. In order
20 to determine if a shock absorber needs to be replaced, the simplest and most widely
used conventional diagnostic testing approach typically involves a technician applying
force to the vehicle fender, or elsewhere on the vehicle body, and visually detecting
the rocking movement response of the vehicle. The resulting oscillations are often
counted visually or by an oscillation measuring device attached to the vehicle. The
25 conventional suspension testing approach therefore involves subjective interpretation
by the technician which may not be consistently reliable.

As can be appreciated, this test cannot feasibly be applied to large
vehicles such as road haulage trucks and the like.

- Another test which may be applied is the European Drop Test, in which
30 a set of axles is mounted on a test rig and is driven over an inclined ramp with a sheer